

NOMENCLATURE OF SUBFAMILIES AND TRIBES IN THE POLEMONIACEAE

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ABSTRACT

The nomenclature of the suprageneric taxa of the Polemoniaceae is updated to reflect recent discoveries of valid old descriptions and recent descriptions of new tribes.

KEY WORDS: nomenclature, Polemoniaceae

A recent systematic treatment of the family Polemoniaceae (Grant 1998) had two main objectives. The first was to update and revise the preexisting classification system (Grant 1959) at the suprageneric level in the light of much new evidence obtained by numerous workers. A summary of the 1998 system is presented in Table 1. The second objective was to discuss the alternative methods of evolutionary systematics and molecular cladistics which have produced some incongruent results in the Polemoniaceae.

Nomenclature was a side-issue in the 1998 paper. The two subfamilies and five of the eight tribes have long established names, and for these I simply reused the old names as they were given in the 1959 treatment. Three other tribes were new in 1998 and were duly described. However, some new discoveries concerning old suprageneric names have been made recently by Reveal (1995, and pers. comm. 1998). Also, some new tribes have been proposed in a recent paper by Porter (1998). This makes it necessary to update the nomenclature of the subfamilies and tribes, a task which is undertaken here.

POLEMONIACEAE A.L. de Jussieu, *Genera Plantarum*, 136-137. 1789. As Polemonia.

Family Cobaeaceae Don, *Edinburgh Phil. Jour.* 10:109-112. 1824. As Cobaeaceae.

Table 1. System of classification of the Polemoniaceae of Grant (1998). Authorship of taxa as given in the 1998 treatment.

- I. Subfamily Cobaeoideae Brand, 1907.
 - 1. Tribe Cantueae Peter, 1897. (*Cantua*, *Huthia*).
 - 2. Tribe Cobaeae Baillon, 1890. (*Cobaea*).
 - 3. Tribe Acanthogilieae V. Grant, 1998. (*Acanthogilia*).
 - 4. Tribe Bonplandieae Baillon, 1890. (*Bonplandia*).
 - 5. Tribe Loeseliae V. Grant, 1998. (*Loeselia*).

- II. Subfamily Polemonioideae Brand, 1907.
 - 6. Tribe Polemonieae Brand, 1970. (*Polemonium*, *Collomia*, *Allophyllum*, *Gymnosteris*, *Phlox*, *Microsteris*).
 - 7. Tribe Gilieae Reichenbach, 1837. (*Gilia*, *Ipomopsis*, *Eriastrum*, *Langloisia*).
 - 8. Tribe Leptodactyloneae V. Grant, 1998. (*Leptodactylon*, *Linanthus*).

- I. Subfam. COBAEOIDEAE G. Arnott, *Encyc. Brit.*, ed. 7, 5:121. 1832. As Cobaeae.
 Subfam. Cobaeoideae Brand, Pflzr. 250:19. 1907.

The earlier name of Arnott (1832) is reported by Reveal (1995).

- 1. Tribe CANTUEAE Peter, *Nat. Pflanzenfam.*, 4(3a):45. 1897.

There is no change here from the treatment in Grant (1998).

- 2. Tribe COBAEEAE Meisner, *Plant. Vasc. Genera*, 180 and 273. 1840. As Cobaeaceae.
 Tribe Cobaeae Baillon, *Hist. Pl.* 10:342. 1890.
 Tribe Cobaeae Peter, *Nat. Pflanzenfam.* 4(3a):44. 1891.

The earlier name of Meisner (1836-1843) is reported by Reveal (pers. comm. 1998).

3. Tribe ACANTHOGLIEAE V. Grant, *Amer. Jour. Bot.* 85:744. 1998.

4. Tribe BONPLANDIEAE Baillon, *Hist. Pl.* 10:342. 1890.

There is no change in nomenclature from Grant (1959 or 1998). However, the tribe is construed more narrowly in the 1998 system than in 1959.

5. Tribe LOESELIEAE J. Porter & L. Johnson, *Aliso* 17:84. June 8, 1998.

Clade Loeseliae J. Porter, *nomen nudum*, *Aliso* 15:64 and 67. 1997.

Tribe Loeseliae V. Grant, *Amer. Jour. Bot.* 85:744. June 17, 1998.

The two *Loeselia* tribes differ greatly in composition and concept. The Loeseliae of Grant contains only the distinctive genus *Loeselia*. The corresponding tribe of Porter & Johnson contains numerous genera, and these fall into two subfamilies in the system of Grant (1998). In concept, the Loeseliae of Porter & Johnson is essentially a clade converted into a taxon, whereas the Loeseliae of Grant is a taxon produced by the evolutionary systematics method (*cf.* Grant 1998).

II. Subfam. POLEMONIOIDEAE G. Arnott, *Encyc. Brit.*, ed. 7, 5:21. 1832.
As Polemonieae.

Subfam. Polemonioideae Brand, *Pflzr.* 250:30. 1907.

The earlier name of Arnott was discovered by Reveal (1995).

6. Tribe POLEMONIEAE Dumortier, *Anal. Fam. Pl.* 25. 1829. As Polemonae.

Gruppe Polemonieae Reichenbach, *Handb. Nat. Pflzsystems*, ed. 1, 194. 1837.

Tribe Polemonieae Meisner, *Plant Vasc. Genera* 273. 1840.

Tribe Polemonieae Baillon, *Hist. Pl.* 10:339. 1890.

Tribe Phlocideae Dumortier, *Anal. Fam. Pl.* 20 and 25. 1829.

Gruppe Phloginae Reichenbach, *Handb. Nat. Pflzsystems*, ed. 1, 194. 1837.

Tribe Phlogieae (Reichenbach) J. Porter & L. Johnson *Aliso* 17:84. June 8, 1998.

The two early names of Dumortier (1829) are reported by Reveal (*pers. comm.* 1998).

7. Tribe GILIEAE Reichenbach in V. Grant, *Nat. Hist. Phlox Fam.* 120. 1959.

Gruppe Gilieae Reichenbach, *Handb. Nat. Pflzsystems*, ed. 1, 194. 1837.

Tribe Gilieae Reichenbach in V. Grant, *Nat. Hist. Phlox Fam.* 120. 1959.

Reichenbach (1837) described the Gilieae as a "Gruppe." I presented it as such (Grant 1959) and went on to designate it as a tribe (Grant 1959). However, Reveal (pers. comm. 1998) considers that Reichenbach's name is still "rankless" and not validly published. Thus, discussion of this case is obviously needed.

Suprageneric ranks were not stabilized in the early 1800s. Some authors used the terms subfamily and/or tribe explicitly, while others did not. Reichenbach (1837) recognized the family by its modern name and under it two levels of suprageneric groups which he designated as "Gruppen." These latter correspond to modern subfamilies and tribes respectively. The Polemoniariae (an inferred subfamily) contains the Polemonieae, Gilieae, and Phloginae, which are the equivalents of modern tribes. Reichenbach (1837) provided a Latin description for each of his inferred subfamilies and tribes.

The rules of nomenclature, both the older rules I used for the 1959 treatment (Lanjouw 1956) and the current rules (Greuter 1994), allow some flexibility in dealing with old suprageneric names. Modern authors are authorized to change the endings of old suprageneric names to adjust them to modern usage in their rank, and so on.

It was clearly Reichenbach's intention to describe the Gilieae as what we would now call a tribe. His Gilieae happens to have the right ending for a tribal name. In 1959, I needed a name for the then newly organized *Gilia* tribe, and I took up Reichenbach's old name and ascribed it to him. This action followed the guidelines in Article 46 of the 1956 rules of nomenclature (Lanjouw 1956), and is within the guidelines of the 1994 rules (Greuter 1994).

8. Tribe LEPTODACTYLONEAE V. Grant, Amer. Jour. Bot. 85:746. 1998.

Clade Linanthieae J. Porter, *nomen nudum*, Aliso 15:64 and 68. June 24, 1997.

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